

AMENDMENTS TO THE CLAIMS:

1.-14. (Cancelled)

15. (Previously Presented) The distraction device according to claim 23, wherein said elongated stem defines a bore extending between said first end and said second end.

16. (Previously Presented) A distraction device for distracting the disc space between adjacent vertebrae, comprising:

an elongated stem having a height corresponding to a desired height of distraction for the disc space, said stem having a first end and a second end defining a longitudinal axis therebetween and a length along said axis that is sized to be maintained within the disc space when said elongated stem is driven into the disc space; and

a flange at said first end projecting outward from said longitudinal axis of said stem, said flange having a bone contacting face for contacting at least one of the vertebrae when said stem is driven into the disc space and for transmitting a reduction force to the vertebra upon application of an external force to the distraction device; and

wherein said elongated stem defines a bore extending between said first end and said second end, said bore including a keyed bore adjacent said second end, said keyed bore having a non-circular configuration for receiving a complementary-shaped portion of a tool therethrough.

17. (Original) The distraction device according to claim 15, wherein said bore includes a threaded bore adjacent said first end for receiving a threaded portion of a tool therein.

18. (Previously Presented) The distraction device according to claim 23, wherein said elongated stem has opposite top and bottom portions, said top and bottom portions having a bone engaging surface configured to resist expulsion of said elongated stem from the disc space.

19. (Previously Presented) The distraction device according to claim 18, wherein said bone engaging surface of said top and bottom portions include a plurality of ridges defined

thereon.

20. (Original) The distraction device according to claim 18, wherein said elongated stem includes side portions between said top and bottom portions, said side portions each defining an inwardly curved surface.

21. (Previously Presented) A distraction device for distracting the disc space between adjacent vertebrae, comprising:

an elongated stem having a height corresponding to a desired height of distraction for the disc space, said stem having a first end and a second end defining a longitudinal axis therebetween and a length along said axis that is sized to be maintained within the disc space when said elongated stem is driven into the disc space; and

a flange at said first end projecting outward from said longitudinal axis of said stem, said flange having a bone contacting face for contacting at least one of the vertebrae when said stem is driven into the disc space and for transmitting a reduction force to the vertebra upon application of an external force to the distraction device; and

wherein said elongated stem has opposite top and bottom portions, said top and bottom portions having a bone engaging surface configured to resist expulsion of said elongated stem from the disc space, said elongated stem including side portions between said top and bottom portions, said side portions each defining an inwardly curved surface, said flange including inwardly curved side edges contiguous with said inwardly curved surface of a corresponding one of said side portions.

22. (Previously Presented) A distraction device for distracting the disc space between adjacent vertebrae, comprising:

an elongated stem having a height corresponding to a desired height of distraction for the disc space, said stem having a first end and a second end defining a longitudinal axis therebetween and a length along said axis that is sized to be maintained within the disc space when said elongated stem is driven into the disc space; and

a flange at said first end projecting outward from said longitudinal axis of said stem, said flange having a bone contacting face for contacting at least one of the vertebrae when said stem is driven into the disc space and for transmitting a reduction force to the vertebra upon application of an external force to the distraction device, wherein said flange is fan shaped and is substantially perpendicular to said longitudinal axis of said elongated stem; and

an elongated driver shaft extending generally along said longitudinal axis and sized to extend outside of the disc space for transmission of said external force to the distraction device.

23. (Previously Presented) A distraction device for distracting the disc space between adjacent vertebrae, comprising:

an elongated stem having a height corresponding to a desired height of distraction for the disc space, said stem having a first end and a second end defining a longitudinal axis therebetween and a length along said axis that is sized to be maintained within the disc space when said elongated stem is driven into the disc space; and

a flange at said first end projecting outward from said longitudinal axis of said stem, said flange having a bone contacting face for contacting at least one of the vertebrae when said stem is driven into the disc space and for transmitting a reduction force to the vertebra upon application of an external force to the distraction device; and

wherein said elongated stem includes opposite top and bottom surfaces configured to contact a superior and an inferior vertebra, respectively;

said flange projects from said stem in a direction toward the superior vertebra; and

the device includes a stop face at said first end of said stem projecting in a direction toward the inferior vertebra; and

an elongated driver shaft extending generally along said longitudinal axis and sized to extend outside of the disc space for transmission of said external force to the distraction device.

24.-38. (Cancelled)

39. (Previously Presented) The distraction device of claim 44, wherein said stem portion includes opposite bone engaging portions, each of said bone engaging portions configured to resist expulsion of said stem portion from the intervertebral space.

40. (Currently Amended) ~~A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:~~

~~a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space;~~ The distraction device of claim 55, wherein said stem portion having a height corresponding to a select distracted height of the intervertebral space and including ~~includes~~ opposite bone engaging portions, each of said bone engaging portions defining a plurality of ridges configured to resist expulsion of said stem portion from the intervertebral space; and

~~a transverse flange portion having a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae.~~

41. (Previously Presented) A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having upper and lower surfaces defining a height corresponding to a select distracted height of the intervertebral space and including side portions, each of said side portions defining a side surface having a concave curvature extending between said upper and lower surfaces; and

a transverse flange portion having a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae.

42. (Previously Presented) The distraction device of claim 41, wherein said flange portion includes concave side edges, each of said concave side edges being contiguous with a

corresponding one of said concave surfaces of said side portions.

43. (Previously Presented) A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having a height corresponding to a select distracted height of the intervertebral space; and

a transverse flange portion having a fan-shaped configuration and a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae; and

an elongated driver shaft extending generally along said axis and sized to extend outside of the intervertebral space for application of an external force to the distraction device to transmit said axial force to said one of the adjacent vertebrae.

44. (Currently Amended) A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having a height corresponding to a select distracted height of the intervertebral space;

a transverse flange portion having a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae; and

a transverse stop element arranged generally opposite said transverse flange portion relative to said longitudinal axis, said transverse stop element adapted to engage an opposite one of the adjacent vertebrae to limit insertion of said stem portion into the intervertebral space; and

an elongated driver shaft extending generally along said axis and sized to extend outside of the intervertebral space, said elongated driver shaft rigidly connected to the distraction device for application of an external force to the distraction device to transmit said axial force to said

one of the adjacent vertebrae.

45. (Currently Amended) The distraction device of claim 44, wherein said transverse stop element is formed integral with said stem portion and together define a single-piece, monolithic structure.

46. (Currently Amended) The distraction device of claim 44, wherein said flange portion is formed integral with said stem portion and together define a single-piece, monolithic structure.

47. (Previously Presented) The distraction device of claim 44, wherein said elongated driver shaft is engaged with said stem portion.

48. (Currently Amended) A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having a height corresponding to a select distracted height of the intervertebral space;

a transverse flange portion having a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae; and

an insertion tool engaged with said stem portion and sized to extend outside of the intervertebral space for transmission of said axial force to said one of the adjacent vertebrae, said flange portion formed integral with said insertion tool and together define a single-piece, monolithic structure.

49. (Previously Presented) The distraction device of claim 47, wherein said elongated driver shaft is releasably engaged with said stem portion so as to be selectively separable therefrom.

50. (Previously Presented) The distraction device of claim 49, wherein said elongated driver shaft is threadedly engaged with said stem portion.

51. (Previously Presented) The distraction device of claim 41, wherein said stem portion is configured for selective engagement with a surgical instrument.

52. (Previously Presented) A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having a height corresponding to a select distracted height of the intervertebral space and including side portions, each of said side portions defining a concave surface; and

a transverse flange portion having a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae; and

wherein said stem portion is configured for selective engagement with a surgical instrument, one of said stem portion and said surgical instrument defining a passage, another of said stem portion and said surgical instrument defining a projection at least partially received within said passage to locate said surgical instrument relative to the adjacent vertebrae.

53. (Cancelled)

54. (Currently Amended) ~~The distraction device of claim 44~~ A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having a height corresponding to a select distracted height of the intervertebral space;

a transverse flange portion having a bone contacting face adapted to engage one of the

adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae; and

a transverse stop element arranged generally opposite said transverse flange portion relative to said longitudinal axis, said transverse stop element adapted to engage an opposite one of the adjacent vertebrae to limit insertion of said stem portion into the intervertebral space; and

an elongated driver shaft extending generally along said axis and sized to extend outside of the intervertebral space for application of an external force to the distraction device to transmit said axial force to said one of the adjacent vertebrae, wherein said stem portion includes a rounded leading end portion to facilitate insertion of said stem portion into the intervertebral space and distraction of the adjacent vertebrae.

55. (Currently Amended) ~~The distraction device of claim 44~~ A distraction device for distracting an intervertebral space between adjacent vertebrae, comprising:

a stem portion extending along a longitudinal axis and adapted for insertion within the intervertebral space, said stem portion having a height corresponding to a select distracted height of the intervertebral space;

a transverse flange portion having a bone contacting face adapted to engage one of the adjacent vertebrae when said stem portion is inserted into the intervertebral space to transmit an axial force to said one of the adjacent vertebrae; and

a transverse stop element arranged generally opposite said transverse flange portion relative to said longitudinal axis, said transverse stop element adapted to engage an opposite one of the adjacent vertebrae to limit insertion of said stem portion into the intervertebral space; and

an elongated driver shaft extending generally along said axis and sized to extend outside of the intervertebral space for application of an external force to the distraction device to transmit said axial force to said one of the adjacent vertebrae, wherein said axial force comprises a reduction force to reduce a spondylolisthesis condition between the adjacent vertebrae.

56.-64. (Cancelled)

65. (Previously Presented) The method of claim 67, further comprising:
providing the device with an elongated driver shaft extending in an axial direction and sized to extend outside of the intervertebral space; and
applying an external force to the elongated driver shaft resulting in the transmitting of the axial reduction force to the anteriorly offset vertebra to reduce the spondylolisthesis condition.

66. (Cancelled)

67. (Previously Presented) A method for performing a surgical procedure on adjacent vertebrae having a spondylolisthesis condition wherein one of the adjacent vertebrae is anteriorly offset relative to the other of the adjacent vertebrae, comprising:

providing a device including an axial stem portion, a transverse flange portion, and a transverse stop portion arranged generally opposite the transverse flange portion;

inserting the axial stem portion into an intervertebral space between the adjacent vertebrae;

engaging the transverse flange portion against one of the adjacent vertebrae and transmitting an axial reduction force to the anteriorly offset vertebra to reduce the spondylolisthesis condition; and

engaging the transverse stop portion against an opposite one of the adjacent vertebrae to limit the inserting.

68.-70. (Cancelled)

71. (Currently Amended) A method for performing a surgical procedure on adjacent vertebrae having a spondylolisthesis condition wherein one of the adjacent vertebrae is anteriorly offset relative to the other of the adjacent vertebrae, comprising:

providing a device including an axial stem portion and a transverse flange portion, the axial stem portion configured for selective engagement with a surgical instrument;

inserting the axial stem portion into an intervertebral space between the adjacent vertebrae; and

engaging the transverse flange portion against one of the adjacent vertebrae and transmitting an axial reduction force to the anteriorly offset vertebra to reduce the spondylolisthesis condition;

selectively engaging the surgical instrument with the axial stem portion, the surgical instrument comprising a tubular sleeve; and

advancing a surgical device through the tubular sleeve toward the intervertebral space.

72. (Not entered)